Applicant: Marinus Gerardus Johannus Van Beuningen

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Amendments to the Claims:

Please amend Claims 1-8 and add new Claim 11 as set forth below.

- 1. (Currently amended) A device for analyzing an interaction between target and probe molecules, comprising:
- a tubular housing having a proximal end and a distal end defining an internal flow passageway, and
- a flow through support member <u>comprising a metal</u>, a <u>ceramic metal</u> <u>oxide</u>, a <u>silicon or a metal oxide in the form of a sheet</u>, film or <u>membrane</u> provided within or on the housing obstructing said internal passageway, whereby said flow through support member is provided with through going channels suitable for allowing an interaction between target and probe molecules.
- 2. (Currently amended) The device according to claim 1, wherein said <u>flow</u> through support member is provided with probe molecules suitable for interacting with target molecules.
- 3. (Currently amended) The device according to claim 1, whereby the said flow through support member is provided at or near the distal end of the housing.
- 4. (Currently amended) The device according to claim 1, wherein said <u>flow</u> through support member <u>comprises</u> is chosen from the group consisting of metals, eeramic metal oxides, silicon, organic polymers and metal oxides, preferably aluminium oxide.
- 5. (Currently amended) The device according to claim 1, wherein said <u>flow</u> through support member is optically transparent or translucent.

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- 6. (Previously presented) The device according to claim 1, wherein said channels extend substantially coaxial with the longitudinal axis of the housing.
- 7. (Currently amended) The device according to claim 1, wherein the plane of the said flow through support member extends substantially perpendicular to the longitudinal axis of the housing.
- 8. (Currently amended) The device according to claim 1, wherein the said flow through support member spans the bore of the housing.
- 9. (Previously presented) An apparatus for analyzing an interaction between target and probe molecules, comprising:
- (a) a handling station comprising a handling device, for aspirating and/or dispensing fluid medium, said handling device comprising a device according to Claim 1, mounted thereto,
- (b) a means for transporting said handling station to a plurality of sections,
- (c) at least one incubation section comprising an incubation device, for administering a fluid sample comprising target molecules to the support member, incubating the support member comprising the fluid sample and/or washing the support member, and
- (d) an analysis section comprising a detection device for detecting an interaction between target and probe molecules, thereby analyzing an interaction.
- 10. (Withdrawn) A method for the analysis of an interaction between target and probe molecules, comprising:
- (a) administering a sample fluid possibly comprising target molecules to the support member of the device according to claim 1,

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- (b) entering the sample fluid into the channels of the support member by capillary forces or by applying a pressure difference over the support member, whereby the target molecules are contacted with the probe molecules,
- (c) generating an alternating flow through the support member whereby at least part of the sample is forced to pass through the channels from the distal side of the support member to the proximal side of the support member and back at least one time, under conditions enabling the interaction between target and probe molecules, and
 - (d) analyzing an interaction between target and probe molecules.
- 11. (New) The device according to claim 1, wherein said flow through support member is provided with through going channels having a pore size diameter between 50 and 400 nm, said channels provided with probe molecules suitable for allowing an interaction between target and probe molecules.